NAVAIR Overview

Presented to:

Presented by:

NAVAIR

NAVAIR's Role in Naval Aviation

- **Develop, acquire, and support aircraft, weapons and related systems which can be operated and sustained *at sea***
- **Provide analysis and decision support for cost/schedule/performance trades and investment decisions**
- **Increase Navy and Marine Corps capability, readiness and affordability in a joint/coalition environment**

Our capabilities support the unique mission of Naval Aviation.

NAVAIR is the Single SYSCOM for both Navy and Marine Corps Aviation

Red signifies Marine Corps

Blue signifies Navy

Our Vision

Sailors and Marines armed with confidence …
because we develop, deliver, and sustain
aircraft, weapons, and systems, on time, on cost
with proven capability and reliability
so they succeed in every mission and return safely home.

Our Strategic Priorities

CURRENT READINESS

Contribute to delivering naval aviation units ready for tasking with the right capability, at the right time, at the right cost

FUTURE CAPABILITY

Deliver new aircraft, weapons, and systems on time and within budget that meet fleet needs and provide a technological edge over our adversaries

PEOPLE

Develop our people and provide them with the tools, infrastructure, and processes they need to do their work

Making the Navy and Marine Corps more capable, ready, and affordable

Acquisition Management Support

REQ'Ts / RISKS FROM FLEET/ OPNAV → MATERIEL SOLUTION ANALYSIS → TECHNOLOGY DEVELOPMENT → ENGINEERING AND MANUFACTURING DEVELOPMENT → PRODUCTION & DEPLOYMENT → OPERATIONS & SUPPORT

HEADQUARTERS / PEOs

WARFARE CENTERS / DEPOT/ INDUSTRIAL SITES (FLEET READINESS CENTERS)

CORE FUNCTIONS/ PROCESSES

ACQUISITION MANAGEMENT

Perform Acquisition Management Of Research, Development, Production, And In-service Support Of Aircraft And Weapons Systems

S&T, R&D, HARDWARE, SOFTWARE PRODUCTS, DESIGN

Conduct Efforts Focused On The Advancement Of Science, Technology, Research And Development And Delivery Of Hardware/ Software Products

IN-SERVICE ENGINEERING & LOGISTICS SUPPORT

Analyze System Data, Determine / Implement Corrective Actions To Sustain In-service Systems And To Ensure Safety, Affordability, And Availability; Perform Engineering Investigations, Engineering Change Proposals

TEST & EVALUATION

Test & Evaluate Aircraft, Weapons & Integrated Systems; Science & Technology For Test & Evaluation

REPAIR & MODIFICATION

Provide For The Repair And/ Or Modification Of Aircraft, Engines, Systems & Components

COMMAND MANAGEMENT AND SUPPORT OPERATIONS

Develop/ Maintain Competency, Policies, Processes & Support Services. Facilitate Effective Utilization Of Infrastructure, Security, Legal, Financial, Mgmt, Personnel & Info Resources

PRODUCTS

TACTICAL AIRCRAFT

AIR ASW, ASSAULT & SPECIAL MISSION

UNMANNED AIRCRAFT & STRIKE WEAPONS

COMMON SYSTEMS/ MISSION SYSTEMS/ TRAINING/ ALRE

Systems Acquisition Programs Managed

PEO JOINT STRIKE FIGHTER

ACAT I

- JOINT STRIKE FIGHTER (LIGHTNING II)

PEO(T) TACTICAL AIRCRAFT

ACAT I

- JOINT PRECISION APPROACH & LANDING SYSTEM (JPALS)
- E-2D ADVANCED HAWKEYE (AHE)
- EA-6B ICAP-III
- EA-18G AIRBORNE ELECTRONIC ATTACK
- F/A-18E/F SUPER HORNET
- INTEGRATED DEFENSIVE ELECTRONIC COUNTERMEASURES (IDECM)
- JATAS
- DoN LAIRCM
- CIRCM (US ARMY LEAD)
- JOINT PRIMARY A/C TRAINING SYSTEM (T-6B TEXAN II) (AIR FORCE LEAD)
- ADVANCED AIRBORNE SENSOR
- LITTORAL SURVEILLANCE RADAR SYSTEM

ADDITIONAL

- 5 ACAT II
- 5 ACAT III
- 6 ACAT IV PROGRAMS
- 3 ABBREVIATED ACQ PROGRAM
- EMALS , AAG
- NEXT GENERATION JAMMER

PEO(A) AIR ASW, ASSAULT, & SPECIAL MISSION

ACAT I

- MV-22, CV-22
- USMC H-1 UPGRADES (AH-1Z, UH-1Y)
- P-8A POSEIDON
- MH-60R
- MH-60S
- CH-53K
- KC-130
- VXX (PRE-MDAP)

ADDITIONAL

- 1 ACAT II
- 2 ACAT III
- 14 ACAT IV PROGRAMS
- 17 ABBREVIATED ACQ PROGRAMS

PEO(U&W) UNMANNED AVIATION & STRIKE WEAPONS

ACAT I

- JOINT STANDOFF WEAPON (UNITARY)
- ADVANCED ANTI-RAD. GUIDED MISSILE
- TOMAHAWK BLK IV
- AIM-9X SIDEWINDER
- VERTICAL TAKEOFF UNMANNED AERIAL VEHICLE (VTUAV)
- BROAD AREA MARITIME SURVEILLANCE
- UNMANNED COMBAT AIR SYSTEM (UCAS) (PRE-MDAP)

ADDITIONAL

- 2 ACAT II
- 3 ACAT III
- 7 ACAT IV PROGRAMS
- 2 ABBREVIATED ACQ PROGRAM (6 POTENTIAL)
- UCLASS ADPO

NAVAIR AIR-1.0 COMMON & SUPPORT

ACAT II

- AMC&D (F/A-18 AND AV-8B)
- RECONFIGURABLE TRANSPORTABLE CONSOLIDATED AUTOMATED SUPPORT SYSTEM (CASS)

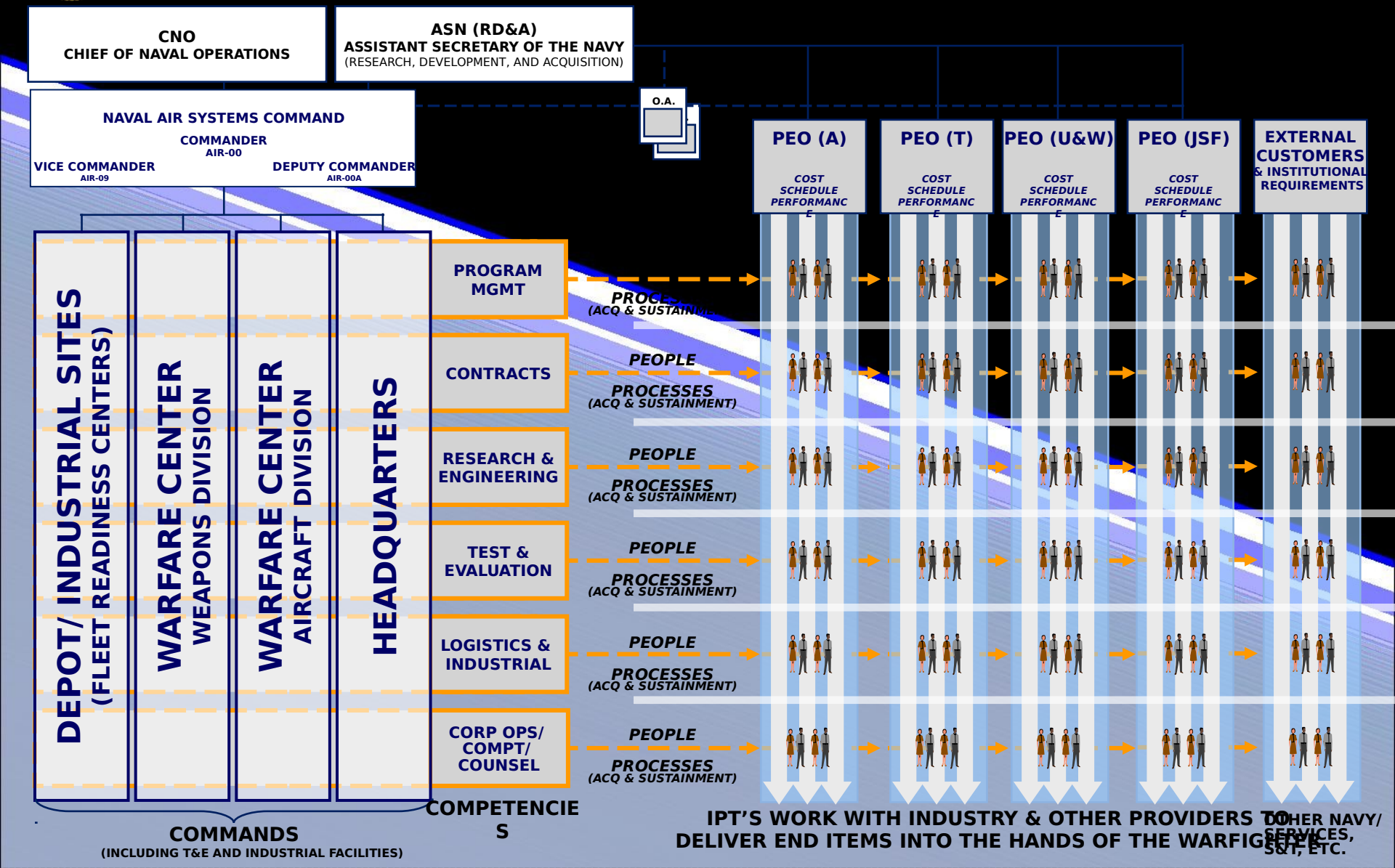
ADDITIONAL

- 3 ACAT III
- 10 ACAT IV PROGRAMS
- 74 ABBREVIATED ACQ PROGRAMS

UPDATED: 11 JAN 2011
DATA SOURCE: AIR-1.1 LOLA SCOTT, 301-757-7228

Concept of Operations

Competency Aligned Organization – Integrated Program Teams (CAO / IPT)
Acquisition Model for Life Cycle Management



Concept of Operations

Competency Aligned Organization – Integrated Program Teams (CAO / IPT)
Acquisition Model for Life Cycle Management

SUPPLY

COMPETENCY ALIGNED ORGANIZATION (FORMAL STRUCTURE)

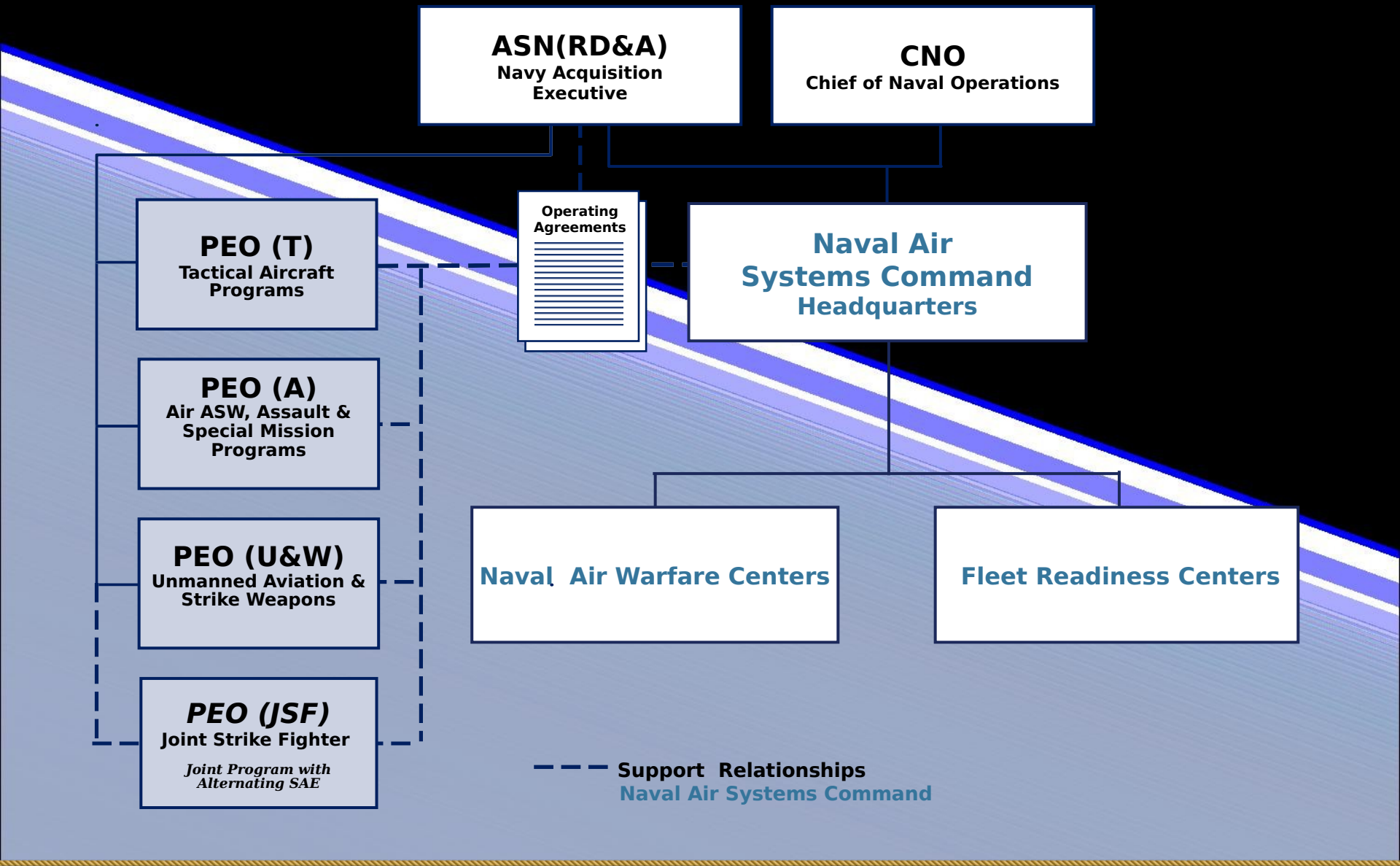
- **COMPETENCIES SPAN ALL SITES**
- **LINKED BY COMMON ALIGNMENT AND PROCESSES**
- **CAPABILITY / ASSET VISIBILITY**

DEMAND

INTEGRATED PROGRAM TEAMS (TEAM STRUCTURE TO PERFORM WORK)

- **MULTI-DISCIPLINED**
- **FLEET / PRODUCT FOCUSED**
- **FULL LIFECYCLE SYSTEM SUPPORT**

Reporting Relationships - NAVAIR and Affiliated PEOs



ORGANIZATIONAL STRUCTURE

ASN (RD&A)
ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT, AND ACQUISITION)

CNO
CHIEF OF NAVAL OPERATIONS

OPERATING AGREEMENT

EXECU

PEO (T)
TACTICAL AIRCRAFT PROGRAMS

PEO (A)
AIR ASW, ASSAULT & SPECIAL MISSION PROGRAMS

PEO (U&W)
UNMANNED AVIATION & STRIKE WEAPONS

PEO (JSF)
JOINT STRIKE FIGHTER

NAVAL AIR SYSTEMS COMMAND
PATUXENT RIVER
COMMANDER
AIR-00

STAFF
COMPTROLLER AIR-10.0
COUNSEL AIR-11.0
CIO AIR-7.2
JAG AIR-00J
SMALL BUSINESS AIR-09B

VICE COMMANDER
AIR-09

DEPUTY COMMANDER
AIR-00A

COMMAND ANALYSIS, STRATEGY & OPERATIONS

NAVAIR HEADQUARTERS

AIR-1.0
PROGRAM MANAGEMENT
ACQUISITION EXEC

AIR-2.0
CONTRACTS
ASST. COMMANDER

AIR-4.0 *
RESEARCH & ENGINEERING
ASST. COMMANDER

AIR-5.0 *
TEST & EVALUATION
ASST. COMMANDER

AIR-6.0 *
LOGISTICS & INDUSTRIAL OPS
ASST. COMMANDER

AIR-7.0
CORPORATE OPERATIONS & TOTAL FORCE
ASST. COMMANDER

AIRCRAFT DIVISION (NAWCAD) *
PATUXENT RIVER
COMMANDER

WEAPONS DIVISION (NAWCWD) *
CHINA LAKE
COMMANDER

NAVAL TEST WING ATLANTIC
PATUXENT RIVER
COMMANDER

NAVAL TEST WING PACIFIC
PT MUGU
COMMANDER

TRAINING SYSTEMS
ORLANDO
COMMANDING OFFICER

NAVAL AIR WARFARE CENTERS

FLEET READINESS CENTERS (FRC) *
PATUXENT RIVER
COMMANDER

NAVAL AIR TECH DATA & ENG SERVICE COMMAND (NATEC)
NORTH ISLAND
COMMANDING OFFICER

FRC EAST
CHERRY POINT
COMMANDING OFFICER

FRC SOUTHWEST
NORTH ISLAND
COMMANDING OFFICER

FRC SOUTHEAST
JACKSONVILLE
COMMANDING OFFICER

FRC WESTERN PACIFIC
ATSUGI, JAPAN
COMMANDING OFFICER

ADDITIONAL FRC SITES:
- MID-ATLANTIC
- WEST
- NORTH WEST

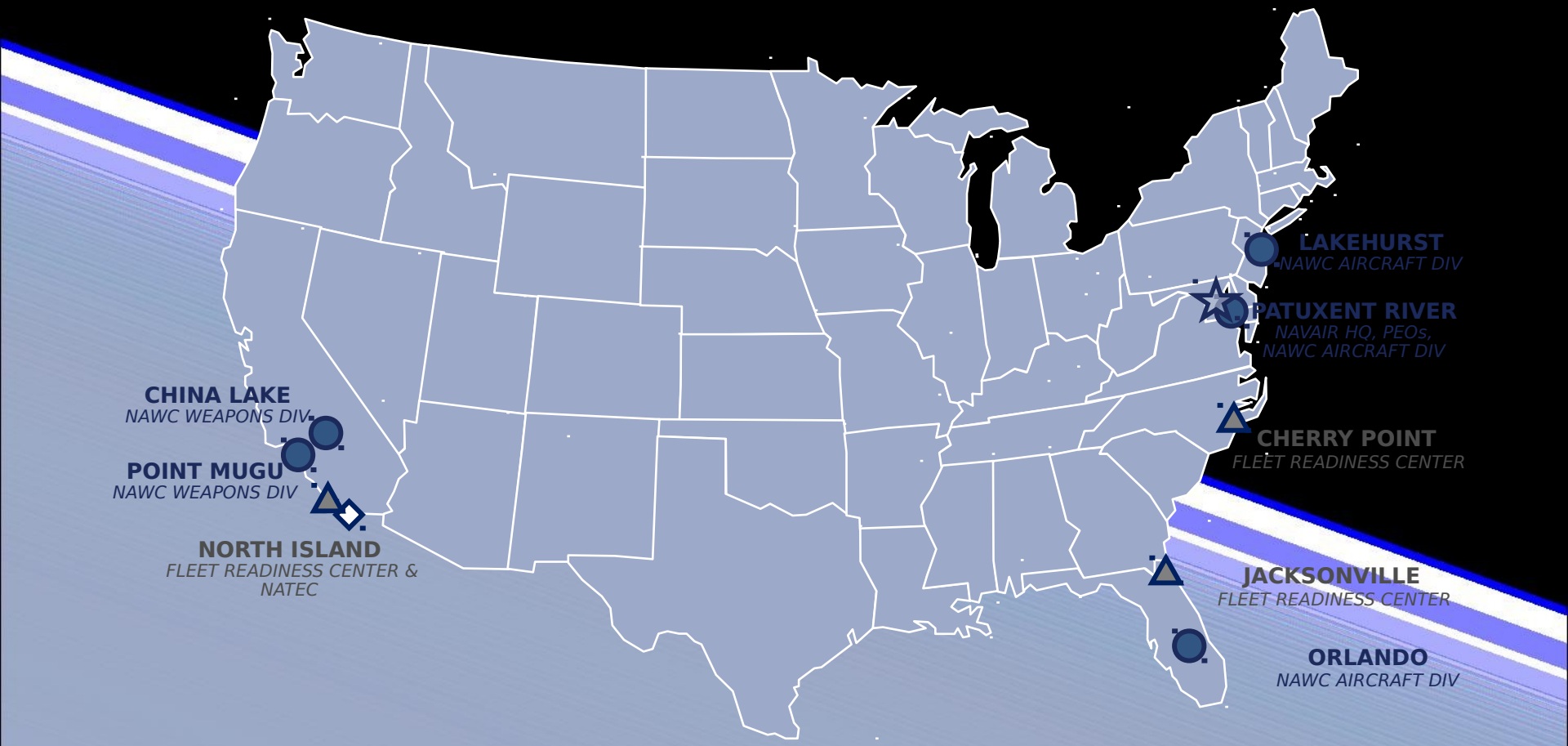
DEPOT/ INDUSTRIAL SITES (FRCs) & LOGISTICS SUPPORT ACTIVITY

ECHELON II
ECHELON III
ECHELON IV

* **DUAL HATTED**

APR 2011
CLEARED FOR PUBLIC RELEASE

Major Locations



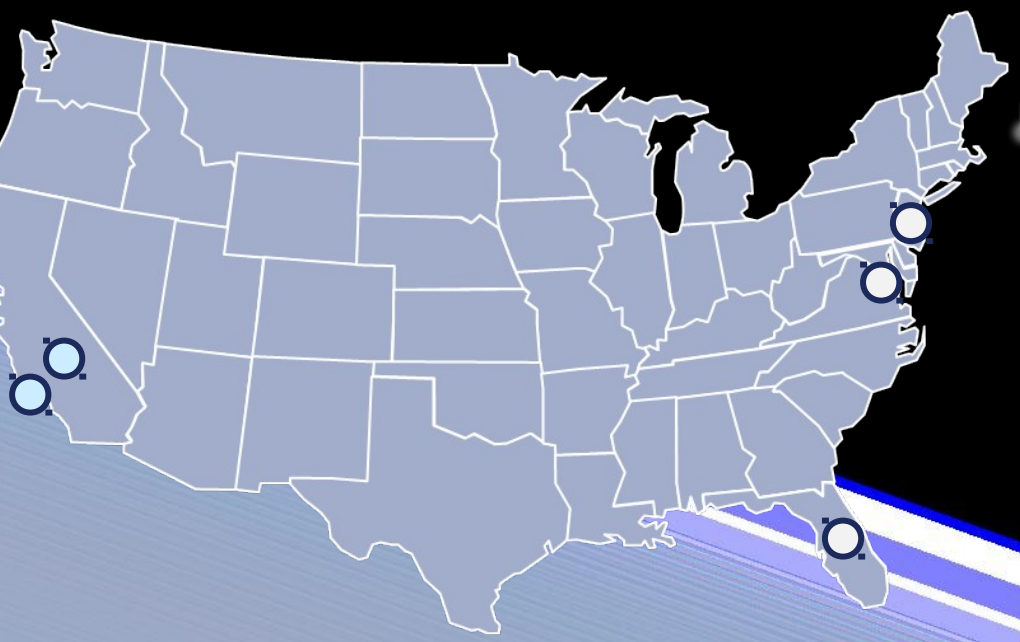
Commands

Naval Air Warfare Centers

Weapons
WEST COAST

China Lake / Pt. Mugu

- Land and Sea Ranges
- Live Fire Testing
- Missiles/Freefall Weapons
- Energetics
- Air-to-Air Weapons
- Air-to-Ground Weapons
- Electronic Warfare Systems



Aircraft
EAST COAST

Lakehurst / Patuxent River /Orlando

- Air Vehicles
- Propulsion & Power
- Avionics & Sensors
- Crew Systems
- Aircraft Launch & Recovery Equipment/ Support Equipment
- Ship Interface & Support Systems
- Human Performance/ Simulator Systems
- Training Systems

- **Navy's principal activity for research, development, acquisition, test and evaluation (RDAT&E), engineering and fleet support for naval aviation platforms, weapons and systems**
- **5th generation weapon systems integration and ship/shore/air integration**
- **Integrated National Ranges and Labs (unique and unavailable in private sector)**
- **Technical authority and acquisition decision support**

NAWCAD Key Resources

Lakehurst

- 123 Structures totaling 1,057,831 Sq. Ft. on 7,400 Acres
- Aircraft Platform Interface Lab
- EMALS Test Site
- Steam Catapult Complex
- Runway Arrested Landing Site
- Jet Car track Site
- Jet Blast Deflector Site
- Carrier Analysis Facility

Patuxent River

- 665 Structures on 13,812 Acres, 10 Hangars, 5 Runw
- 5780 Sq. Miles Airspace: 780 Restricted., 5,000 Con
- Anechoic Chamber, Becker Lab, ACETEF, SAIL, APF, F
- Test Wing Atlantic, USNTPS, NACRA, Webster Field
- Controlled RF environment
- Over-water approaches
- Instrumentation & Fabrication

St Inigoes

- 60 Buildings on 852 acres with 2 Active Runways
- Shipboard ATC / Combat ID
- Ship / Shore Communications
- Controlled RF environment
- Over-water approaches
- Aircraft tracking opportunities
- Pier and shoreline access

Orlando

40.5 Acres, Co-located with Team Orlando

- Navy - NSA, NAWCTSD
- Army - PEO-STRI, RDECOM
- USMC - PMTRASYS
- USAF - AFAMS
- Coast Guard

NAWCAD Major Laboratories and Facilities

- Air Combat Environment Test and Evaluation Facility (ACETEF)
- Anechoic Test Facilities
- Advanced Maritime Technology Cer
- AEGIS Communications Facility
- Aircraft Prototype Facility
- Combat and Communications Lab
- E3 Test Facility
- Electromagnetic Pulse Simulator
- Facilities for Antennas and RCS Measurements
- Manned Flight Simulator
- Materials Lab
- Propulsion and Power
- Surface/Aviation Interoperability Laboratory (SAIL)

http://www.navair.navy.mil/nawcad.capabilities

NAWCWD Key Resources

China Lake

- Structures totaling 3,139,010 sq. ft. on 1,110,414 acres
- 5 Hangars, 3 main runways + 2 UAV operational strips
- 1,777 sq. mi. of Land Range (Instrumented)
- 20,000 sq. mi. Restricted / Controlled Air Space
- Michelson, Lauritsen, and Advanced Weapons Laboratories
- China Lake Propulsion Laboratory
- Weapons Survivability Laboratory
- Supersonic Nava

Point Mugu

- 157 Structures totaling 1,496,447 sq. ft. on 4,490 acres
- 4 Hangars, 2 main runways
- 36,000 sq. mi. of Sea Range
- 36,000 sq. mi. Restricted / Controlled Air Space
- Sea Range Operations Center
- EA-6B & EA-18G Airborne Electronic Attack (AEA)
- Electronic Combat Simulation and Evaluation Laboratory (ECSEL)
- Radar Reflectivity Laboratories
- Naval Test Wing Pacific – VX-30

San Nicolas

- 25 Structures Totaling 147,538 sq. ft. on 13,370 acres
- Range Instrumentation
- Theater Warfare Exercises and Littoral Warfare Training

NAWCWD Major Laboratories and Facilities

- Advanced Weapons Lab
- AV-8B, F/A-18, H-1 Fleet Support Laboratories
- Electro-Optical/Infrared (EO/IR) Systems Evaluation Laboratory
- Energetics
- Integrated Battlespace Arena (IBAR)
- Real-Time Hardware-in-the-Loop Testing
- Joint Counter IED Facility
- Radar Reflectivity Lab
- Supersonic Naval Ordinance Research Track
- Sky Top
- Weapons Survivability Laboratory (WSL)

http://www.navair.navy.mil/nawcwd/capabilities

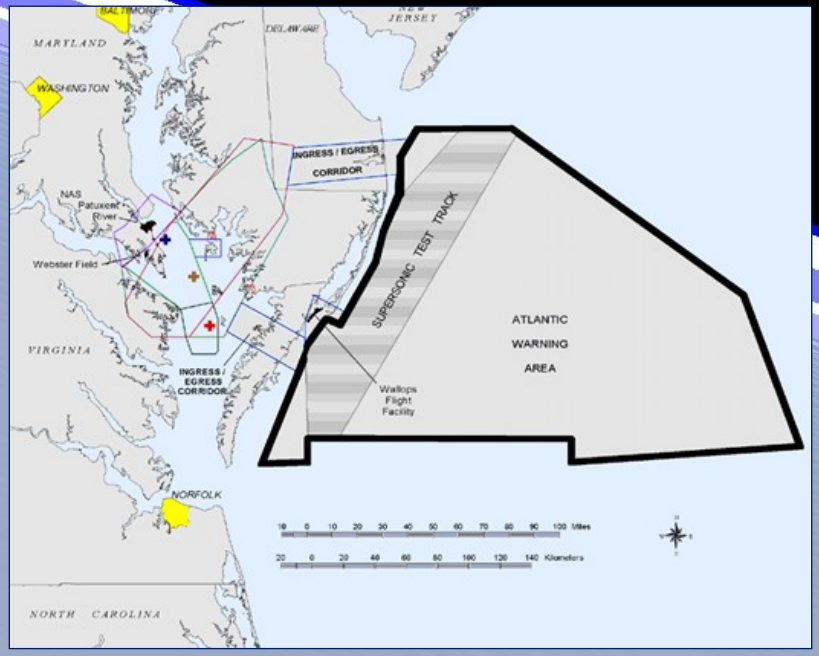
NAVAIR Ranges

PACIFIC RANGES

- Restricted Airspace (R2508)
  - -Approx. 20,000 square miles
  - -20,000 feet (FL200) to unlimited altitude
- Land & Electronic Combat Ranges
  - Restricted Areas R2505, 2524, 2506
  - Approx. 1.1M Acres
  - Surface to unlimited altitude
- Offshore Ranges
  - Warning Areas Approx. 36,000 sq mi
  - Surface to unlimited altitude

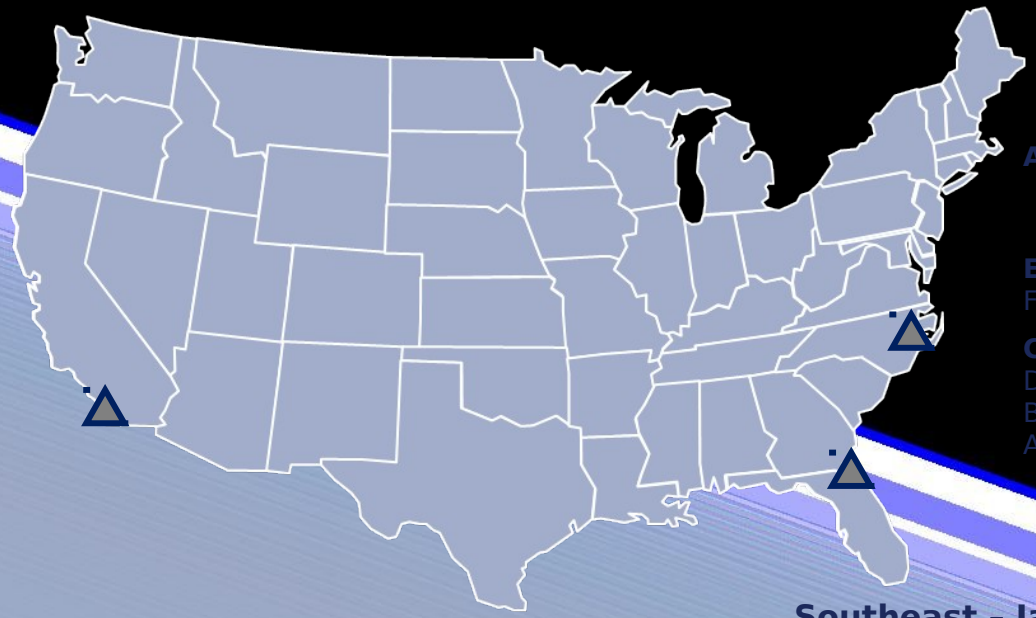
ATLANTIC RANGES

- Chesapeake Test Range
  - -Restricted Areas R-4002/5/6/7/8
  - -Approximately 2,400 square miles
  - -Surface to 85,000 feet
- Offshore Ranges
  - -Warning Areas W-107/8/386
  - -Approximately 18,000 square miles
  - -Surface to unlimited altitude



Fleet Readiness Centers

Depots / Industrial Sites



Southwest – North Island

Aircraft
AV-8B, C-2, E-2, F/A-18, H-1, H-60, H-53, V-22, H-46

Engines
LM2500, T700, T56

Components
Instruments, E-2 radar, Composites, Components for above T/M/S

East – Cherry Point

Aircraft Repair
AV-8B, EA-6B, H-1, H-46, H-53, V-22

Engine Repair
F402, T56, T58, T64, T400

Component Repair
Dynamic Components, Rotor Blades, Props, Blades/Vanes, APU / GTC, E-2 and P-3 Props

West Pacific – Atsugi, Japan

Aircraft Repair
C-130, EA-18G, E-2, F/A-18, H-1, H-53, H-60, P-3

Southeast – Jacksonville

Aircraft
E/A-6B, F/A-18, H-60, P-3

Engines
F414, J52, T56, T700

Components
Electro-Optics, Air Refueling Stores, Racks/Launchers, Components for above T/M/S

INTEGRATED MAINTENANCE, REPAIR AND OVERHAUL OF NAVAL AIRCRAFT, SYSTEMS AND COMPONENTS

Fleet Readiness Centers

- FRC mission is to create high velocity repair loops by inserting depot level capability into intermediate level repair sites
  - Sites typically located near operational organizations and closer to the flight line
  - Proximity minimizes lengthy delays and transportation costs, and returns component to the flight line and warfighter quicker and at far less expense

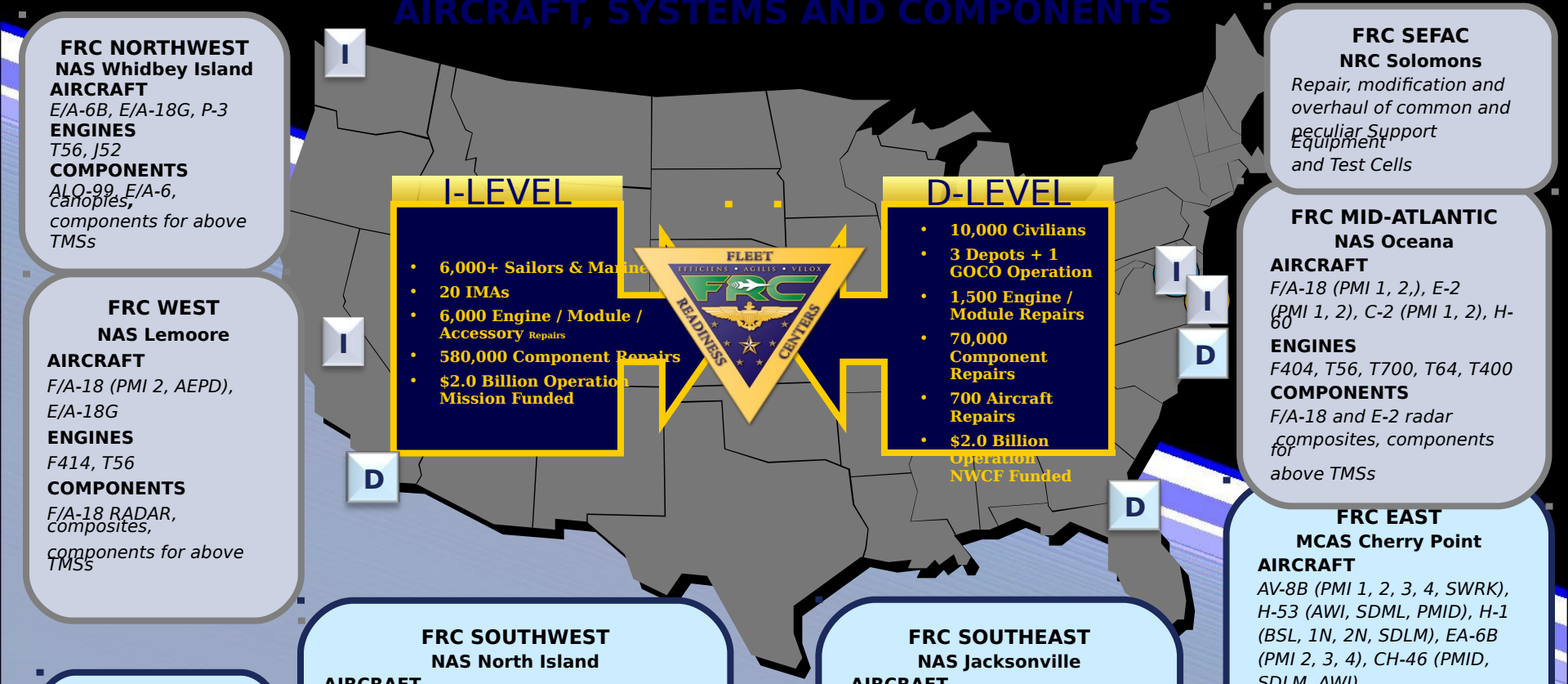
- **To date, the FRCs have avoided more than $940 million**
  - **About $120 million more than the to-date-targeted projection**
  - **On course to meet the $1.2**

Fleet Readiness Centers

D NAVAIR Depot/Industria

I Intermediate-level Repa

INTEGRATED MAINTENANCE, REPAIR AND OVERHAUL OF NAVAL AIRCRAFT, SYSTEMS AND COMPONENTS



FRC NORTHWEST
NAS Whidbey Island
AIRCRAFT
E/A-6B, E/A-18G, P-3
ENGINES
T56, J52
COMPONENTS
ALQ-99, E/A-6, canopies, components for above TMSs

FRC WEST
NAS Lemoore
AIRCRAFT
F/A-18 (PMI 2, AEPD), E/A-18G
ENGINES
F414, T56
COMPONENTS
F/A-18 RADAR, composites, components for above TMSs

FRC WEST PAC
NAF Atsugi, JA (Formerly NAPRA)
AIRCRAFT
H-53, C-130, E/A-6B, E/A-18, H-46, H-60, H-1, P-3, E-2, E/A-18G

FRC SOUTHWEST
NAS North Island
AIRCRAFT
F/A-18, E-2, C-2, H-1, H-60, AV-8 (PMI 2,3), H-53 (PMID), (PMI 1N, 2N, PMI 2 Mods, P&E)
ENGINES
LM2500, T700, T56
COMPONENTS
Instruments, E-2 radar, composites, components for above TMSs

FRC SOUTHEAST
NAS Jacksonville
AIRCRAFT
E/A-6B (PMI 1, 2, 3, 4), P-3 (PH 1, 2, 3, SSI), F/A-18 (PMI 1, 2, 1M, 2M), H-60 (PMI 1N, 2N)
ENGINES
T56, J52, TF34, F414, T700
COMPONENTS
Electro-Optics, air refueling stores, racks/launchers, components for above TMSs

FRC SEFAC
NRC Solomons
Repair, modification and overhaul of common and peculiar Support Equipment and Test Cells

FRC MID-ATLANTIC
NAS Oceana
AIRCRAFT
F/A-18 (PMI 1, 2,), E-2 (PMI 1, 2), C-2 (PMI 1, 2), H-60
ENGINES
F404, T56, T700, T64, T400
COMPONENTS
F/A-18 and E-2 radar composites, components for above TMSs

FRC EAST
MCAS Cherry Point
AIRCRAFT
AV-8B (PMI 1, 2, 3, 4, SWRK), H-53 (AWI, SDML, PMID), H-1 (BSL, 1N, 2N, SDLM), EA-6B (PMI 2, 3, 4), CH-46 (PMID, SDLM, AWI)
ENGINES
T58, F402, T64, T400, T56
COMPONENTS
Dynamic components, rotor blades, props, blades/vanes, APU/GTC, components for above TMSs as well as E-2 and P-3 props

Tactical Aircraft

JSF Lightning II

- Multi-role, stealth strike fighter
- Carrier version strengthened for catapult launch and arrested landing
- Short take-off and vertical landing (STOVL) version to replace Marine Corps AV-8B
- Testing began early 2008

- In February 2011, both an F-35B STOVL variant and an F-35C carrier variant flew for the first time with a Navy test pilot at the controls

http://www.jsf.mil/f35/f35_variants.htm

EA-18G Growler

- Replacement for EA-6B
- Variant of the combat-proven F/A-18F Super Hornet Block II
- Performs the Navy's airborne electronic attack mission

- First delivery to the fleet June 2008
- Initial Operating Capability (IOC) September 2009
- Full Rate Production (FRP) approved November 2009
- Total requirement: 114 aircraft

www.navair.navy.mil (EA-18G Growler)

E-2D Advanced Hawkeye

- Replacement for E-2C
- Will feature state-of-the-art radar with a two generation leap in capability and upgraded aircraft systems that will improve supportability and increase readiness

www.navair.navy.mil (E-2 Hawkeye)

- Carrier suitability testing began aboard USS Harry S. Truman (CVN 75) in February 2011
- OPEVAL scheduled for FY12
- Full Rate Production (FRP) scheduled for FY13
- Initial Operating Capability (IOC) scheduled for FY15

F/A-18E/F Super Hornet

- Combat proven, multi-role fighter and attack aircraft upgrade of F/A-18C/D
- Most advanced tactical asset in the USN Fleet
- In fighter mode, provides escort and fleet air defense
- In attack mode, provides force protection, interdiction and close and

- Can conduct unescorted strikes against highly defended targets early in a conflict
- Total requirement: 515 aircraft

www.navair.navy.mil (F/A-18)

AV-8B Harrier

- Replaced the AV-8A and the A-4M light attack aircraft

- Primary mission: close air support/intermediate range intercept/attack
- Attacks and destroys surface and air targets, provides helicopter escort and conducts related air operations as directed

www.navair.navy.mil (AV-8B)

EA-6B Prowler

- Long-range, all-weather aircraft with advanced electronic countermeasures capability
- Two significant upgrades now in development
  - Improved Capability (ICAP III)
  - Multifunctional Information Distribution System (MIDS)

www.navair.navy.mil (EA-6B)

- Suppresses enemy air defenses in support of strike aircraft and ground troops by interrupting enemy electronic activity and obtaining tactical electronic intelligence within the combat area

Navy / Marine Corps Rotorcraft

H-1 Upgrades Program

- AH-1Z "build new" for 58 aircraft commences in FY11 with deliveries starting in FY12
- Will replace the AH-1W
- Primary missions: Close Air Support, Armed Escort/Reconnaissance, Anti-Armor OPS, Control of Support Arms and Anti-Air Warfare

- Total requirement: 189 aircraft

- Nine UH-1Ys deployed to Afghanistan in past 12 months
- Replacing the UH-1N
- Initial Operating Capability (IOC) 2008
- Primary missions: Airborne Command & Control, Armed Escort/Reconnaissance, Control of Supporting Arms, Search & Rescue/Medical EVAC and Special OPS Support
- Total requirement: 160 aircraft

www.navair.navy.mil (H-1)

MV-22 Osprey

- **Medium lift replacement for the CH-46E Sea Knight**
- **Can operate as a helicopter or turboprop aircraft**
- **Successfully completed first combat tour in 2008**

www.navair.navy.mil (V-22)

MH-60R

- Seahawk Multi-Mission Combat Helicopter
- Primary missions: Anti-Submarine Warfare (ASW); Anti-Surface Warfare (SUW)

- Will replace SH-60B/F as primary rotary wing sea shield component of Sea Power 21
- Total requirement: 254 new aircraft

www.navair.navy.mil (H-60)

MH-60S

- Seahawk Multi-Mission Combat Helicopter
- Will partner with MH-60R for SUW

- Primary missions: Combat Support, Humanitarian/Disaster Relief, CSAR, SUW, SPECWAR, Maritime Interdiction OPS and Organic AMCM
- Total requirement: 271 new aircraft

www.navair.navy.mil (H-60)

CH-53K

- Heavy-lift Helicopter
- Replacing CH-53E to meet Marine Corps 2015 warfighting requirements
- In system development and demonstration phase
- Completed critical design review July 2010

www.navair.navy.mil (H-53)

Maritime Patrol and Reconnaissance

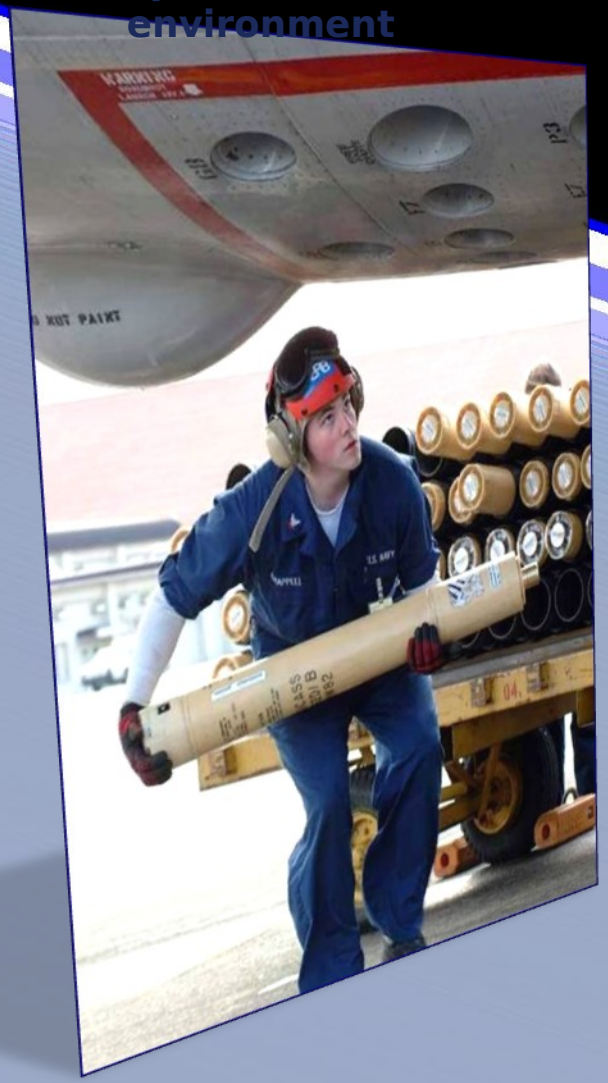
P-8A Poseidon

- Derived from Boeing 737-800 to replace P-3C Orion
- Long-range, ASW, SUW, intelligence, surveillance and reconnaissance aircraft
- Testing began in 2009

www.navair.navy.mil (P-8)

Sonobuoys

- Enable airborne and networked systems to detect submarines in any environment



- Three types of Navy Sonobuoys
  - Passive
  - Active
  - Special, which contain acoustic or non-acoustic sensors and other technologies

www.navair.navy.mil (ASW Sensors)

Weapons

Sidewinder

- First successful sidewinder launched in 1953
- More than 200,000 built for 40 countries
- AIM-9X is latest variant incorporating many components of legacy sidewinders

www.navair.navy.mil (Sidewinder)

Tomahawk

- The Tomahawk® Land Attack Missile (TLAM) is a long-range, subsonic cruise missile used for land attack warfare, launched from U.S. Navy surface ships and U.S. Navy and Royal Navy submarines
- Tomahawk® provides an on-scene commander with the flexibility to attack long-range fixed targets or support special operations forces with a lethal, responsive, precision weapon system
- The Block IV missile variant can loiter over a target area and respond to emerging targets and provides battle damage information to warfighting commanders

www.navair.navy.mil (Tomahawk)

Special Missions

E-6B Mercury

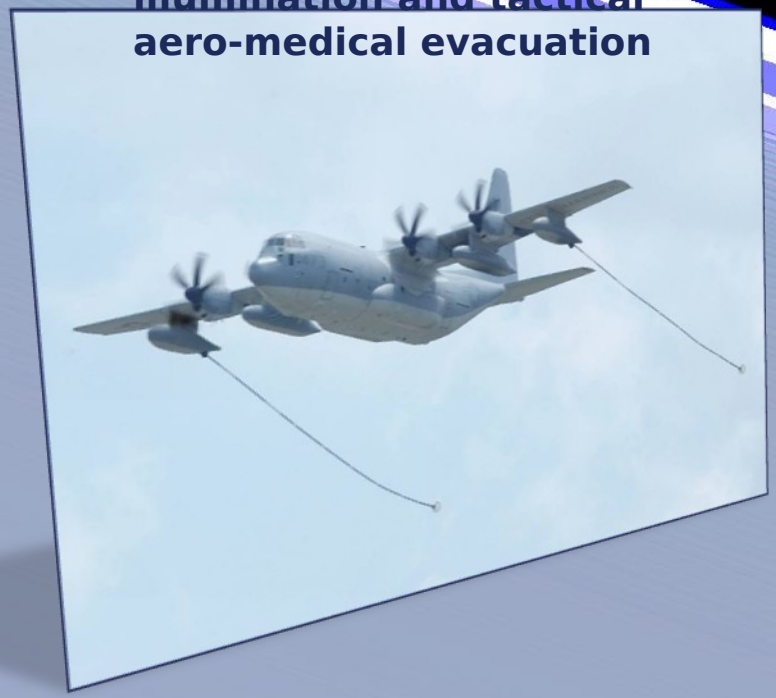
- E-6B is capable of fulfilling either the E-6A Communications Relay mission or the Airborne Strategic Command Post mission
- Provides survivable, reliable and continuous airborne command, control and communications in support of the President, Secretary of Defense and United States Strategic Command (USSTRATCOM)

- Performs the Navy's TACAMO ("Take Charge and Move Out") mission
- Equipped with an airborne launch control system (ALCS)

www.navair.navy.mil (E-6)

KC-130J Hercules

- Next generation Marine Corps in-flight refueler to replace KC-130F/R/T
- Provides aerial refueling, rapid ground refueling, tactical troop transport, aerial delivery of personnel and cargo, battlefield illumination and tactical aero-medical evacuation



- Program of record increased from 51 aircraft to 79 aircraft to include replacement of legacy reserve Marine Corps aerial refuelers

www.navair.navy.mil (C-130)

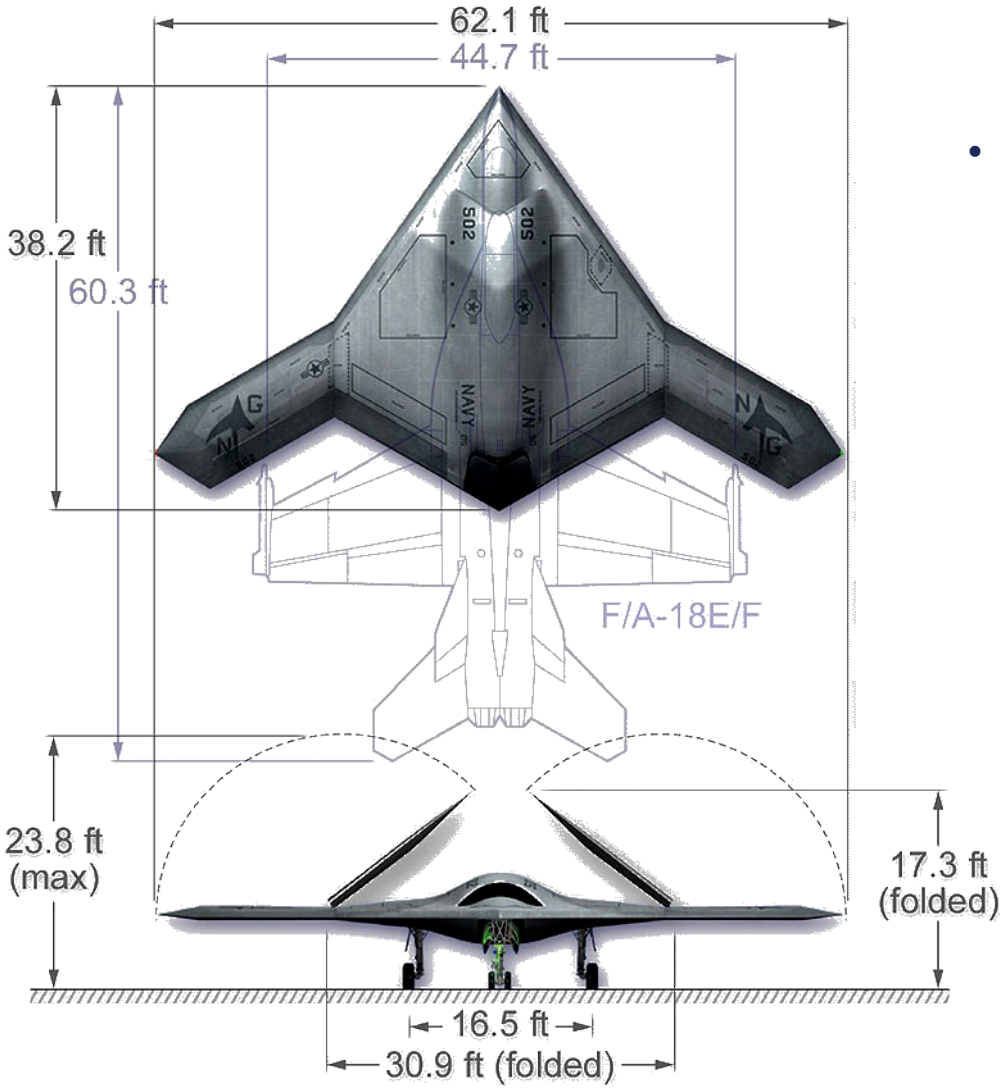
Unmanned Air Systems

MQ-4C Broad Area Maritime Surveillance Unmanned Aircraft System (BAMS UAS)

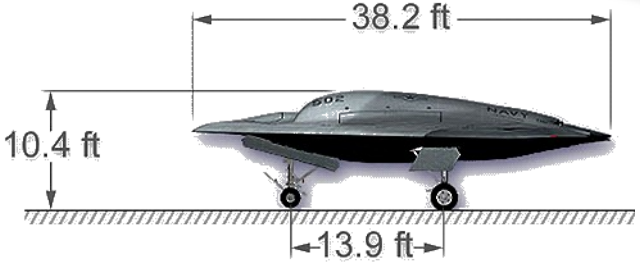
- **Persistent maritime ISR capability with 2000 NM mission radius**
- **Multiple sensors**
- **P-8A Poseidon multi-mission maritime aircraft adjunct**
- **Initial Operating Capability (IOC) 2015**
- **Unique capability for the warfighter**

www.navair.navy.mil (BAMS)

X-47B Unmanned Combat Air System (UCAS-D)



- **Confirms the viability of operating a representative low observable platform in the carrier environment**
- **First flight completed 4 February 2011**



www.navair.navy.mil (UCAS-D)

MQ-8B Fire Scout

- The MQ-8B Fire Scout aircraft provides reconnaissance, intelligence, surveillance and target acquisition capabilities as the first Navy-owned, Sailor-operated and fully autonomous rotary-wing unmanned aircraft system

- First operational deployment supporting counter-narcotics missions completed in April 2010

www.navair.navy.mil (Fire Scout)

Small Tactical Unmanned Aircraft System (STUAS)

- The U.S. Navy and Marine Corps will use STUAS to provide persistent maritime and land-based tactical reconnaissance, surveillance and target acquisition data collection and dissemination capabilities to the warfighter
- A two-year contract for the design, development, integration and test of STUAS was awarded in July 2010
- Initial Operating Capability (IOC) planned for FY13, with early operational capability option in FY11

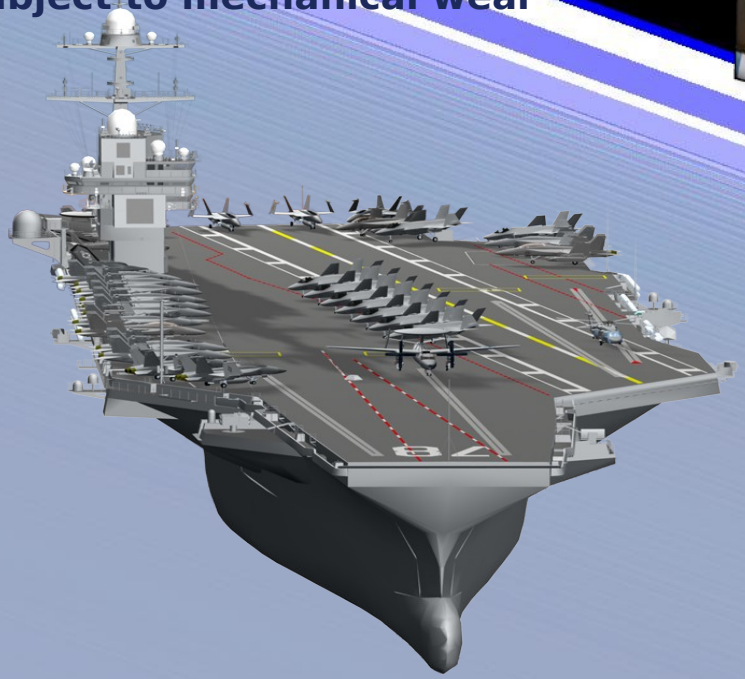
www.navair.navy.mil (STUAS)

Aviation Systems

EMALS

Electro-Magnetic Aircraft Launching System

- Will replace steam catapults currently used to launch carrier aircraft
- System uses highly reliable and modular electrical and electronic components not subject to mechanical wear

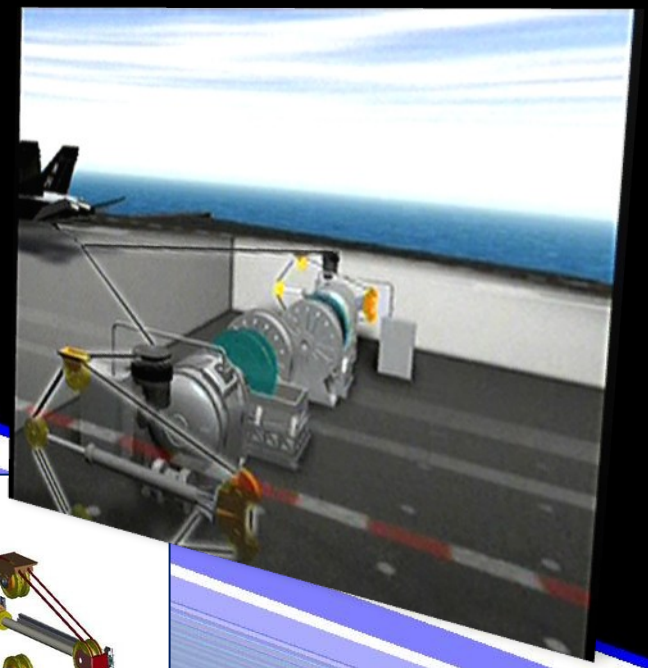


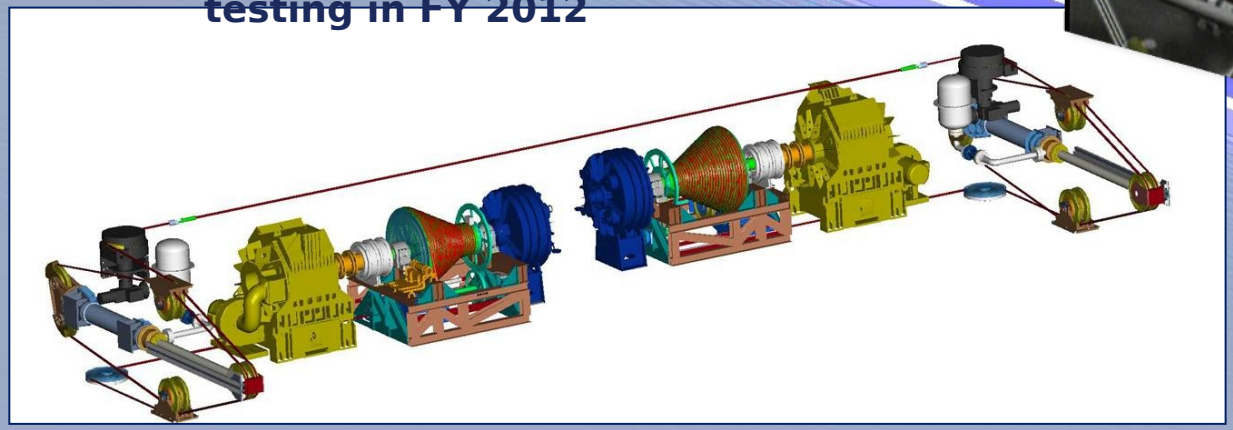
- Planned for inclusion on the Ford-class aircraft carriers
- EMALS successfully launched its first aircraft, an F/A-18E Super Hornet, in December 2010

www.navair.navy.mil (EMALS)

AAG
Advanced Arresting Gear

- Replacing Mark 7 shipboard arresting gear system
- Will provide new operational advances for safely and efficiently recovering carrier-based, tailhook-equipped aircraft
- Dead load testing to begin in 2011 followed by aircraft compatibility testing in FY 2012



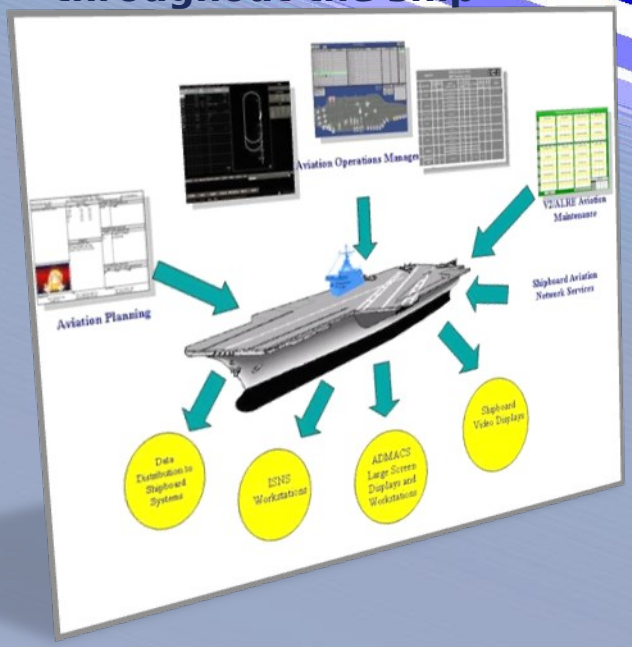


www.navair.navy.mil (AAG)

ADMACS

Aviation Data Management And Control System Upgrade

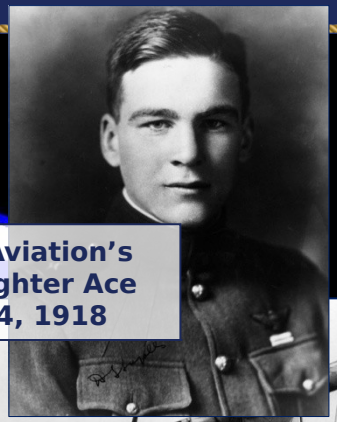
- **Block II provides the capability to rapidly input, collect, process and distribute relevant air operations data and display info in all required ALRE and air ops work centers throughout the ship**



- **Block II in system development and demonstration phase**
- **All active-duty aircraft carriers will be equipped with the ADMACS Block II by FY12; Block III by FY12**

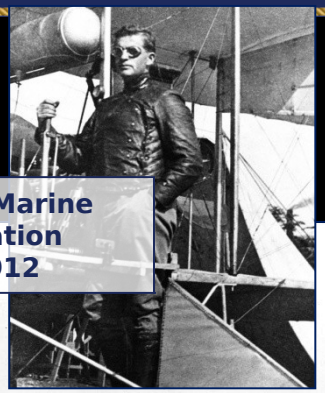
www.navair.navy.mil (ADMACS)

Naval Aviation Firsts



Naval Aviation's First Fighter Ace Sept. 24, 1918

Navy's First Aircraft Carrier March 20, 1922



Birthday of Marine Corps Aviation May 22, 1912

First Combat Flight April 24, 1914

The Navy's First Aircraft July 1, 1911

First Successful Hydroaeroplane Flight Jan 26, 1911

Birthday of Naval Aviation May 8, 1911

First Shipboard Aircraft Landing Jan. 18, 1911

First Arrested Landing on board a U.S. Navy Aircraft Carrier Oct. 26, 1922

VSTOL TacAir is Introduced Into Marine Corps; Jan. 27, 1971

Visit www.navair.navy.mil

NAVAIR – Where the future of Naval Aviation takes flight